BEFORE THE ARIZONA CORPORATION COMMISSION

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IN THE MATTER OF U S WEST COMMUNICATIONS, INC.'S COMPLIANCE WITH § 271 OF THE TELECOMMUNICATIONS ACT OF 1996.

DOCKET NO. T-00000A-97-0238

RESPONSE OF MCI WORLDCOM

On June 8, 1999, the Chief Hearing Officer, Jerry L. Rudibaugh, of the Arizona Corporation Commission ("Commission") issued a procedural order continuing the presently scheduled hearing and procedural dates in this proceeding to obtain parties' input regarding the best procedure to achieve an efficient and thorough review of Operational Support Systems ("OSS") issues in this application filed by U S WEST Communications, Inc. ("U S WEST"). The order states that the Commission believes that the standards for OSS must be clarified to determine whether U S WEST has met these standards. The order also states that a collaborative process to assist U S WEST in complying with the standards will result in a more expeditious satisfaction of § 271 requirements.

MCI WorldCom Inc. ("MCIW") provides its responses to the questions posed by the Commission in its procedural order in this filing.

1. What are the current national standards for OSS?

The telecommunications industry [including the Bell Operating Companies ("BOCs") and the CLECs] has established national standards that designate the interfaces the BOCs and CLECs should adopt to allow standardized access to the BOCs' OSS functions. The four principal groups are: the Ordering and Billing Forum ("OBF") of the Carrier Liaison Committee, The Electronic Communications Implementation Committee ("ECIC"), the T1M1 Committee, and the EDI-Service Order Subcommittee (SOSC) of the Telecommunications Industry Forum. All four groups are sponsored by the Alliance for Telecommunications Industry Solutions. ("ATIS").

The OBF committees identify the guidelines for pre-ordering, ordering, and provisioning forms and business rules. The OBF committees are responsible for the business process flows, interface guidelines, and informational requirements. The OBF committees create the Local Service Ordering Guideline ("LSOG"), Access Service Ordering Guideline ("ASOG") and the Local Service Request ("LSR") forms. The most recent version of the LSOG is Version 4 that was published April 1999. The ASOG generally supports the ordering of access services; however, in addition, the ASOG contains business rules and elements in order to order local interconnection trunks, unbundled trunking and unbundled transport. The most recent version of the ASOG is Version 21 published April 1999. The OBF Billing Committee identifies the guidelines for the bills. The Carrier Access Billing System ("CABS") Billing Output Specifications ("BOS") contain the business rules and the elements of the bills. The latest CABS version is 31 published earlier this year. The implementation dates with this release were April

1999 through May 1999. The Small Exchange Carrier Access Billing ("SECAB") supports the billing information for smaller carriers.

MCIW has attached to this response as Attachment 1 a presentation entitled *Summary of Industry Guidelines for Operations Support Systems Functions* as updated by the OBF on May 14, 1999. The first 16 pages of the presentation generally describe the various committees and the processes used to issue industry standards. Pages 17 through 31 summarize the OBF work and address pre-ordering, ordering, provisioning and billing. Pages 17 through 31 provide an up-to-date summary of the current national standards developed by OBF committees.

The EDI Committee is responsible for some data modeling. The EDI-SOSC identifies the interface standards for pre-order, order and provisioning. The EDI releases are associated with the LSOG and are called EDI LSOG Mechanization Specifications ("ELMS"). ELMS 4 is the current version . It includes EDI Version 10, which is the most current EDI release and is associated with LSOG 4. ELMS 4 is due for industry release before the end of July, 1999.

The ECIC and T1M1 forums identify the standards associated with the Electronic Bonding interface for Maintenance and repair. The ECIC is a working committee of the Telecommunications Industry Forum ("TCIF") and was established to foster the implementation of electronic communications to improve customer service. The ECIC identifies and resolves technical and operational issues for the implementation of Operations, Administration, Maintenance and Provisioning ("OAM&P") service management functions between telecommunication jurisdictions of customers and suppliers.

ECIC's subcommittees provide Generic Implementation Guidelines ("GIGs") for the voluntary implementation of OAM&P standards. The ECIC GIGs support the electronic interface protocol to exchange local ordering and pre-ordering information. The standard interface protocol for local ordering is the EDI over TCP/IP with Secured Socket Layer #3. The protocol standard was established in March 1997. The most current version of the supporting document of this interface is the Interactive Agent Version 2, dated December 1998.

The ECIC identified two options for the Pre-Ordering interface; EDI over TCP/IP /SSL3 and Common Object Request Broker Architecture ("CORBA").

The T1MI Committee develops the ANSI standards for the electronic bonding interfaces. The Trouble and Maintenance interface standard is the ANSI T1.227 and ANSI T1.228 dated 1995.

2. For areas in which no national standards exist, when are national standards anticipated?

Sufficient and completed national standards exist for the exchange of information and the provision of basic local exchange services between BOCs and CLECs. These standards address all functions MCIW currently requires to compete in the local market. However, while the existing national standards are a good start, MCIW supports the efforts in progress. As is stated and evident in Attachment 1, the development of national standards is an evolutionary process. The existing national standards will likely be improved and expanded as new services are created.

The OBF responds to the ongoing needs of the industry. Digital Subscriber Loop ("DSL") and other products will be developed and supported by MCIW. For example, the OBF is currently addressing:

OBF Issue Number 1938 Titled: AIN Service - Advanced Intelligent Network. Issue Statement: The industry does not have a procedure for ordering AIN services, such as subscriber line triggers from an AIN service provider.

OBF Issue Number: 1881 Titled: Add Loop Qualification for xDSL and ISDN BRI services to Pre-Order Inquiry Practice (POINQ). Issue Statement: There is a need to determine whether facilities at a given location are available for xDSL and/or ISDN BRI services prior to ordering the associated service.

The industry bodies work as quickly and as thoroughly as possible to meet the needs of the telecommunications industry; however, MCIW cannot provide a time frame for when any particular future standard may be implemented.

3. What are the current FCC guidelines for OSS?

The FCC guidelines for OSS have been established in the FCC's local competition order and in its various 271 decisions. In LA II[1], the FCC stated that it "has provided clear guidance on the standards and legal obligations for the provision of OSS. We do not believe there is serious dispute about most of these standards." (LA II, para. 91.)

A BOC must provide nondiscriminatory access to OSS (which includes the systems, information, and personnel that support network elements or services offered for

[1] *In the Matter of Application of BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision of In-Region, InterLata Services in Louisiana*, CC Docket No. 98-121, *Memorandum Opinion and Order* (Released Oct. 13, 1998) ("*Second BellSouth Louisiana Order*"), hereinafter referred to in the text as "LA II, para. ____".

resale). This access is integral to the ability of competitors to enter and compete with the incumbent. Access to OSS must sufficiently support each of the three entry strategies established by the act: interconnection, UNEs, and resale. OSS access must not favor one entry strategy over another.[2] (MI, para. 133.)

It is necessary to consider all of the automated and manual processes that a BOC has undertaken to provide access to OSS functions. This necessarily includes: point of interface for the competing carrier's OSS to interconnect with the BOC; any electronic or manual processing link between that interface and the BOC's internal OSS (including all necessary back office systems and personnel); and all of the internal OSS (or "legacy systems") that a BOC uses in providing network elements and resale services to a competing carrier. (MI, para 134.)

Generally speaking, there must be a 2-part inquiry. First, it must be determined whether the BOC has deployed the necessary systems and personnel to provide sufficient access to each of the necessary OSS functions and whether the BOC is adequately assisting competitors to understand how to implement and use all of the OSS functions available to them. Second, it must be determined whether the OSS functions that the BOC has deployed are operationally ready, as a practical matter. (LA II, para. 85; MI para. 131.)

Under the first part, the BOC must demonstrate that it has developed sufficient electronic and manual interfaces to allow competing carriers to access all of the necessary

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[2] *In the Matter of Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services in Michigan,* CC Docket 97-137 (August 19, 1997) ("*Ameritech Michigan Order*"), ¶ 133, hereinafter referred to in the text as "MI, para. __."

OSS functions. For those functions that the BOC accesses electronically, it must provide equivalent electronic access for competing carriers. A BOC must provide competing carriers with the specifications necessary to modify or design their systems in a manner that will enable them to communicate with the BOC's legacy systems and any interfaces utilized by the BOC for such access. The BOC must provide competing carriers with all of the information necessary to format and process their electronic requests so that these requests flow through the interfaces, the transmission links, and into the legacy systems as quickly and efficiently as possible. The BOC must disclose any internal "business rules," including information concerning the ordering codes that the BOC uses that competitors need to place orders through the system efficiently. The BOC must ensure that its OSSs are designed to accommodate both current and projected demand. (MI, para 137.) Under the second part, it must be determined whether the OSS functions provided by the BOC are actually handling current demand and will be able to handle reasonably foreseeable demand volumes. Actual commercial usage is the most probative evidence. carrier-to-carrier testing, independent 3rd party testing, and internal testing can also provide valuable evidence, but are less reliable indicators of actual performance than commercial readiness. (MI, para. 138, LA II, para. 86.)

For those OSS functions that are analogous to OSS functions that the BOC provides to itself in connection with retail service offerings, the BOC must provide competitors with access that is equal in terms of quality, accuracy, and timeliness. The OSS functions associated with pre-ordering, ordering and provisioning for resale services, repair and maintenance for both resale and UNEs, and daily customer usage for billing all have retail analogues. (MI, para. 139, 140; LA II, para. 87.)

For those OSS functions that have no retail analogue, such as the ordering and provisioning of UNEs, the BOC must demonstrate that the access it provides offers an efficient competitor a meaningful opportunity to compete. LA II provides a good example of how these guidelines are applied in actually evaluating the OSS offered by a BOC. (MI, para. 141; LA II, para. 87.)

As the FCC has noted, the best evidence of whether OSS functions are operationally ready is "actual commercial usage." (LA II, para. 86.) However, as this Commission knows, there is extremely limited competitive local exchange service within U S WEST's service territory in Arizona. In the absence of commercial usage, the FCC then considers: carrier-to-carrier testing, independent third-party testing, and internal testing. (LA II, para. 86.) In this case, for most (if not all) of U S WEST's OSS, there is no actual commercial usage, nor has there been any carrier-to-carrier testing. Thus, U S WEST is left to rely on either third-party testing or internal testing to satisfy this obligation. However, this Commission should note that the FCC has never approved the results of an OSS test that was administered internally by the RBOC.

The FCC has stated clear directives on what a competent OSS test plan should contain. First, the test must show that U S WEST's OSS can handle commercial volumes of orders. In denying BellSouth's second § 271 application in Louisiana, the FCC stated:

> BellSouth's internal testing results do not address whether the ordering functionality for UNEs is nondiscriminatory. In particular, BellSouth fails to provide any end to end testing of its interfaces for UNEs. Given the low volume of actual commercial usage, it is crucial to have testing results that provide reliable and predictable results of how BellSouth's systems would respond to actual commercial usage. (LA II, para. 141.)

In order to fulfill this FCC directive, US WEST must use volumes which closely approximate anticipated commercial usage of its OSS.

Second, the FCC has noted the importance of third-party participation in OSS testing. The FCC has determined that "as a general matter, third-party review of a BOC's OSS functions is relevant, although not required, to determine whether its systems are operationally ready." (MI, para. 216.) The FCC noted that "an independent evaluation of OSS functions from an objective third-party may provide additional support demonstrating the operational readiness of those OSS functions that have otherwise only undergone internal testing by the incumbent." (MI, para. 216.) The FCC has cautioned that "[t]he persuasiveness of a third-party review is dependent, however, on the conditions and scope of the review itself." (MI, para. 216.) The FCC emphasized that "third-party reviews should encompass the entire obligation of the incumbent LEC to provide nondiscriminatory access, and, where applicable, should consider the ability of actual competing carriers in the market to conduct business utilizing the incumbent's OSS access." (MI, para. 216.)

Third, US WEST must adequately test the full range of OSS functionality it must make available to its competitors. As noted earlier, the FCC has established a two-part test regarding the operational readiness of the incumbent's OSS stated as follows: (a) "whether the BOC has deployed the necessary systems and personnel to provide sufficient access to each of the necessary OSS functions" and (b) "whether the BOC is adequately assisting competing carriers to understand how to implement and use all of the OSS functions available to them." (MI, para. 136.) As to the former, testing must encompass end-to-end testing of all of the basic OSS functions, including pre-ordering,

ordering, provisioning, maintenance and repair, and billing, as well as all of the key elements of these functions, like LNP, 911, and directory listings. As to the latter, the issue of whether US WEST is adequately assisting competing carriers should be examined by testing how the BOC manages and internally supports its relationship with carriers. Key elements of the relationship include interface development, network design and interconnection planning, instructions for interface use, assistance with system administration issues, and change management procedures." (MI, para. 137.)

Bell South claimed that testing the capacity of its OSS test is a sufficient test of OSS functionality in its second application, but the FCC rejected it. In its comments on the BellSouth application, the Department of Justice ("DOJ") noted:

> System capacity, while important, is but one of the components essential to adequate wholesale support processes. While system capacity tests are significant, they are insufficient to demonstrate adequate performance of the end-to-end process.[3]

Fourth, CLEC input is critical to the success of any OSS testing. Input from all industry participants is necessary on any test plan that may be used to determine the adequacy of U S WEST OSS.

Fifith, the RBOC Test Plan must prove that the methods that the RBOC proposes for collocation and combining UNEs are viable at commercial volumes. A test plan without this critical element is fatally flawed and will, standing alone, be grounds for the FCC to deny any future 271 application. Again the FCC provides pertinent guidance:

> [An RBOC] must prove the efficacy of its collocation arrangement [as a method for combining UNEs] in order to demonstrate that, as a legal and practical matter, BellSouth

[3] *In the Matter of Second Application By BellSouth Corporation* (CC Docket No. 98-121), *Evaluation of the Department of Justice* (August 19, 1998), at 36.

> can 'provide ... unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications service' and in a manner that allows competitors to accommodate both current and projected demand for unbundled network elements and combinations of unbundled network elements. BellSouth's refusal to heed the requirement, explicitly stated in the *BellSouth South Carolina Order*, that BellSouth provide such proof through either commercial usage or testing is grounds for denial of BellSouth's section 271 application.[4]

4. What are other standards this Commission should consider in evaluating whether U S WEST OSS complies with § 271?

The Commission should carefully consider the analyses of the Department of Justice. Provided in the various 271 proceedings brought before the FCC. Those analyses can be found on the Internet at:

Bell South 271 applications (SC, LA, LA-II):

http://www.usdoj.gov/atr/public/comments/sec271/bellsouth/bellsouth-meta.htm

Ameritech 271 application (MI):

http://www.usdoj.gov/atr/public/comments/sec271/ameritech/ameritech.htm

SBC 271 application (OK):

http://www.usdoj.gov/atr/public/comments/sec271/sbc/sbc.htm

In addition, as stated in answers to other questions, the Commission should also look to U S WEST's own internal measures and performance standards to ascertain if

[4] *Second BellSouth Louisiana Order*, ¶ 166. Here, the FCC sends a clear message to U S WEST – and this Commission – that refusal to heed explicitly stated requirements in previous FCC Section 271 Orders is grounds for denial of any U S WEST Section 271 application.

CLECs are receiving non-discriminatory access to U S WEST's OSS and back office systems.

5. Has an OSS, or any portion of OSS, been approved by the FCC?

The FCC has not approved any OSS or any portion of an OSS; however, in LA II, both the FCC and the Department of Justice noted that BellSouth had made a number of improvements to address problems identified in previous decisions.

6. What type of collaborative process do you recommend to enable the parties to reach agreement on an acceptable OSS?

MCIW believes that an industry wide collaborative approach leading to independent third-party testing is the most efficient and effective means of determining the adequacy of the OSS access that any ILEC provides to CLECs. MCIW will fully develop its position concerning independent third party testing, performance measures and enforcement mechanisms in its response to Question 7.

MCIW recommends that the staff of the Commission should convene workshops that will enable U S WEST, interested parties, and the staff to examine U S WEST's OSS.[5] U S WEST must provide CLECs with OSS at parity with its self-provisioned services, and where no retail analogue is available, the service provided must provide the CLECs with a meaningful opportunity to compete. Unless this is demonstrated to the

[5] MCIW also supports a 14-state independent test of U S WEST's OSS since U S WEST's OSS are similar regionwide. (See Response to Question 14.)

Commission on the record, the Commission will not be able to find that U S WEST's OSS meets the criteria for Section 271 approval.

The workshop setting will also be useful for soliciting input from the parties on the elements of an OSS master test plan. However, such a plan must ultimately be developed by an independent third party. To arrive at a starting point, the Commission could direct U S WEST to submit an OSS Master Test Plan within 4 weeks. That plan could then be reviewed by interested parties and an independent consultant retained by the staff during the workshop so that a recommendation could be made to the independent third party testing U S WEST's OSS.

Finally, the output from the workshop may be used by parties in testimonies and exhibits.

Responsibilities: The responsibilities of the parties in the collaborative process must be clear to ensure that the Commission has an adequate record on which to base its decision.

1. U S WEST

As the Section 271 applicant, U S WEST must bear the burden of proving that its systems, practices, and procedures offer CLECs nondiscriminatory access to OSS. US WEST must be forthcoming with information requested by the Staff and all other interested parties. It must provide the necessary experts and system users, system documentation, excerpts from its methods and procedures manuals, business rules and any other resource required to assist in the factual determination of the adequacy of its OSS. The sufficiency of U S WEST's OSS

is at issue, not CLEC's.

2. The Staff

The Staff of the Commission has the responsibility to document the record for decision-making. Useful roles include deciding what information must be provided to the collaborative process, requiring parties to state their positions, whether verbally or in writing, taking and distributing minutes of discussions conducted during the collaborative process, and identifying "open issues" for briefing by the parties. For example, the Staff could request parties to submit two-page position papers on issues identified one day in advance, to ensure that all necessary areas are covered and to focus the discussion in any given workshop.

3. CLECs

The CLEC role is generally to describe the characteristics of OSS that CLECs need in order to provide competitive local service. CLECs should provide input to any evaluation of the sufficiency of the interface and other OSS service, by describing their preferred interface type and the types of orders that must be handled by the OSS interfaces.

4. Residential Utility Consumer Office ("RUCO")

RUCO should evaluate whether the OSS will ensure that consumers will have a positive experience when CLECs are using U S WEST's OSS in order to provide services and compete in the local market. For example, RUCO should determine if consumers be able to obtain adequate information concerning their

requests in a timely manner when, for example, they are ordering products and services, reporting trouble, or inquiring about billing issues.

Collaborative Environment:

The workshops should be informal. Statements during the collaborative process should not be made under oath or taken down verbatim by a court reporter. However, meeting notes, which include open , issues should be maintained by the objective third party or Staff.

Meet in a large conference room. Arrange seats around round/horseshoe shaped table so all participants can observe and be heard.

Have a phone-in bridge set up during the workshops to allow out of town representatives to participate.

Staff should take notes on a laptop computer and contemporaneously project them on a screen a screen so parties can ensure that issues have been properly presented for discussion, argument or briefing.

Using butcher paper or other "permanent" easily viewed medium, staff should keep a running list of "open issues" posted on the wall and cross them off as consensus is reached.

7. What information is necessary to enable you to determine whether U S WEST's OSS is acceptable?

The collaborative process must elicit the following information to enable

the Commission to determine that U S WEST's OSS is acceptable.

- The **interfaces, functionalities, systems, methods, and practices** used by U S WEST to perform each OSS function (pre-ordering, ordering, provisioning, maintenance and repair, and billing each product offered for local service for CLECs and itself. Parties should actually be able to see U S WEST's OSS , including its back-office systems, in action in a confidential setting, in order to determine what U S WEST customer service representatives actually have available to them and to determine whether U S WEST is providing nondiscriminatory access to its OSS.

- **All retail analogues to the products** or services offered for local service including the speed, accuracy, and consistency with which U S WEST offers those products or services to its retail end-user customers.

- **A performance standard** that describes the speed, accuracy, and consistency of US WEST's provisioning of OSS to compare with the performance U S WEST provides to its end-user customers. If no retail analogue to an OSS process exists, then the OSS function must be subject to a benchmark performance standard that ensures it is sufficiently accessible, quick, accurate, and effective to allow a CLEC a meaningful opportunity to compete in the local exchange marketplace.

- **Comprehensive third party** (not CLEC to U S WEST) **testing** of all of U S WEST's OSS, with test results that demonstrate the readiness of the OSS to process commercial levels of CLEC orders. Attached to this response as Attachment 2 is the text of a letter from MCIW to the FCC discussing comprehensive third party testing.

- **An enforcement mechanism** that will ensure that US WEST continues to meet the adopted performance measurements after it receives Section 271 certification.

A. <u>Identify the interfaces, functionalities, systems, methods, and practices used by U S WEST to compare to those provided to CLECs by U S WEST</u>

To determine if the OSS access that an U S WEST provides to CLECs is adequate and nondiscriminatory, the MCIW recommends that the following process should be followed:

1. Clearly identify and define necessary OSS functionalities;
2. Investigate and evaluate the OSS functions that U S WEST provides to itself;
3. Investigate and evaluate the necessary OSS functions that U S WEST provides, or should provide, to CLECs;
4. Compare the result of steps 2 and 3, i.e., compare functions that U S WEST provides to itself and to CLECs;

5. Investigate and evaluate the OSS' capacity (considering both manual and electronic processes) to handle CLEC requests and transactions; and

6. Evaluate whether the information, help desk support and training that U S WEST provides to CLECs is sufficient to allow CLECs to design their halves of the interface.

7. Determine if CLECs and U S WEST are equal partners and have defined rules on the change management process affecting existing interfaces. U S WEST also should have established procedures for certifying software through jointly developed test decks before a new interface is in production mode or a software upgrade to an existing interface is introduced.

i. Step 1: Identify and Define Functionalities.

Before any testing can commence, there must be an understanding of "what should be tested." MCIW recommends that both the OSS functionalities U S WEST provides to itself and to CLECs are what should be tested. To be able to do that, the OSS functionalities that must be provided by U S WEST to CLECs for meaningful competition to exist in Arizona should be identified and clearly defined. This step will create a clear definition for the independent tester of what actually should be tested.

An example of why this step is so critical may be helpful. Various U S WEST OSS status reports claim that "flow-through" of various types of CLEC orders has been deployed for some time. However, U S WEST freely admits that the definition of the

term "flow-through" that it uses is at odds with the definition of flow-through that the FCC and most of the telecommunications industry employs. The FCC has defined flow-through as involving "orders that [U S WEST] processes electronically through its gateway and accepts into its back office systems without manual intervention (*i.e.*, without additional human intervention once the order is submitted into the system)."[6] U S WEST, however, persists in maintaining, contrary to the FCC's definition, that CLEC orders which undergo human intervention in the form of a "cursory review" (which include each and every CLEC order) are "flow-through" orders. Under the FCC's definition, however, U S WEST has failed to deploy any flow-through capabilities.

Additionally, it is impossible to develop a test plan for a function if it is not clear what the function includes. This first step of clearly defining OSS functionalities will provide the foundation upon which the testing of U S WEST's interfaces can be built.

In addition to identifying the necessary OSS functionalities, MCIW recommends, as discussed later in these comments, that performance measures for those functionalities be identified. Once the functionalities are sufficiently identified, performance measures will provide the objective and quantitative indicators to allow the Commission and third party tester to assess the quality of the functions that U S WESTY provides to CLECs. Absent those performance measures, the Commission and tester will have difficulties in deciding "how good is good enough".

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[6] In the Matter of Performance Measurements and Reporting Requirements for Operational Support Systems, Interconnection, and Operator Services and Directory Assistance, FCC Docket No. 98-56, Notice of Proposed Rulemaking (Released April 17, 1998) at ¶ 72; see also, In the Matter of In-Region, InterLATA Services in Louisiana.

ii. Step 2: Evaluate what the ILEC Provides to Itself

Once the necessary functionality is clearly identified and defined, the next step is to evaluate what OSS access U S WEST provides to itself. In order to test this standard, it is necessary to understand the manner in which U S WEST provides the identified OSS functionality to itself. Without this understanding, it is impossible to determine if the functionality that U S WEST provides to CLECs is equivalent to what U S WEST provides to itself. Simply put, you must know what U S WEST provides to itself before you can conclude that what U S WEST provides to CLECs is at parity with what U S WEST provides to itself. Any test plan, therefore, must include an investigation and evaluation of the manner in which U S WEST provides OSS functionality to itself.

Apart from the previously mentioned quantitative and objective analysis of performance results, some qualitative investigation of the functions that U S WEST provides itself will also be required. For example, when a U S WEST customer service representative retrieves and reviews a customer service record ("CSR"), what type of information is contained in that record? As another example, how many steps are required for a U S WEST customer service representative to place an order for an additional feature? These activities do not easily lend themselves to quantitative assessment. Nevertheless, similar processes that U S WEST designed for CLECs may discriminate against CLECs. The testing and investigation, therefore, must not be limited to only what can easily be measured.

iii. Step 3: Evaluate What the ILEC Provides to CLECs

The third testing step, once the tester has been determined what U S WEST provides itself, is to investigate and evaluate the OSS functions that U S WEST provides to CLECs. The investigation should evaluate the OSS functions that U S WEST provides to CLECs and that relate to the interconnection, unbundled network elements and combinations thereof, resold services and collocation items that CLECs will require of U S WEST. The investigation should include preordering, ordering, provisioning, maintenance, repair and billing OSS functions for the above items. The investigation should make use of test scenarios for the transactions that CLECs will typically require from U S WEST.

iv. Step 4: Compare for parity the functions provided to the ILEC and to the CLECs

Only after both the OSS functions that U S WEST provides to itself and the OSS functions that the U S WEST provides to CLECs have been evaluated and understood can a comparison of the two be made. Where performance results have been generated, the comparison should include statistical testing. For functions or activities where performance results cannot be produced, it will be necessary to draw conclusions through more qualitative means such as inspection or relative conclusions of "better" or "worse". In any event, the comparisons should be designed to answer the question of whether U S WEST is providing equivalent access to its OSS functions.

v. Step 5: Evaluate OSS capacity

It is not enough that U S WEST is providing access to its interfaces. An ILEC "must demonstrate that it is presently ready to furnish [access to operations support

systems] in the quantities that competitors may reasonably demand and at an acceptable level of quality".[7] The test performed as part the evaluation, therefore, should also include an investigation of the capacity of U S WEST's systems and processes to handle CLECs' needs for OSS functionality. The capacity investigation should include an evaluation of both the manual and mechanized processes that U S WEST uses to provide CLECs with OSS access, and must not be limited to only the mechanized processes used in OSS access. The FCC defines OSS to include collectively, the "systems, databases and personnel...that are used by the incumbent LEC to support telecommunications services and network elements".[8] That definition would necessarily include any manual process that the ILEC employs in providing OSS access to CLECs. The capacity of the manual processes must therefore be considered in any investigation of ILEC overall OSS capacity.[9]

vi. Step 6: Evaluate OSS training and documentation

When the FCC investigates whether access to an ILEC's OSS is available as both a legal and practical matter, one of the factors it will consider is the documentation and information that the ILEC provides to allow the CLEC to develop its half of the OSS interface. Specifically the FCC requires that BOCs provide competing carriers:

- the specifications necessary to instruct them on how to modify or design their systems in a manner that will enable them to communicate

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[7] *Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services in Michigan*, CC Docket No. 97-137, Memorandum Opinion & Order (rel. Aug. 19, 1997), ("*Ameritech Michigan Order*"), ¶ 110.

[8] *Ameritech Michigan Order*, ¶ 129.

[9] *Ameritech Michigan Order*, ¶¶194, 196.

with the BOC's legacy systems and any interfaces utilized by the BOC for such access;

- all of the information necessary to format and process CLECs' electronic requests so that these requests flow through the interfaces, the transmission links, and into the BOCs' legacy systems as quickly and efficiently as possible; and
- any internal "business rules", including information concerning the ordering codes that a BOC uses that CLECs need to place orders through the system efficiently.[10]

The evaluation of the U S WEST's interface should include a determination of the adequacy of the information U S WEST provides to CLECs. A failure to provide the required information, or the provision of inadequate information, could render U S WEST's OSS unavailable as a practical matter. Not having the information needed for a CLEC to develop its side of the interface would result in U S WEST's interface being just as unavailable as if there were no interface at all. The above mentioned information is necessary to allow CLECs to efficiently and effectively interconnect with U S WEST interfaces and OSSs, and as such, the adequacy of that information should be evaluated as part of this test.

vii. Establish change management and software certification processes.

Often problems with interface performance operation can be avoided with adequate notice to the CLEC of changes in the ILEC systems and documentation or through testing of software versions before initiation. CLECs should be involved early

[10] *Ameritech Michigan Order*, ¶ 137.

on in the introduction of any change or new software that will affect their ability to conduct preordering, ordering, provisioning and other OSS functions. Third-party tester KPMG found that a software certification process was absent from BA-NY's processes and developed one, it also tested BA-NY's existing change management process and found that it was not being followed. These discoveries led to two new measurements, still being developed, that will monitor compliance with these processes.

B. Carrier-to-Carrier Performance Standards Issues

Carrier-to-carrier performance standards are an important ingredient in determining whether U S WEST is meeting its nondiscrimination and adequate service obligations when CLECs are using its OSS. Without clear, well-defined performance measures and standards the determination of whether U S WEST is meeting its nondiscrimination obligations must rely upon anecdotes, and hyperbole. Performance standards bring needed objectivity and allow all parties to know just what constitutes acceptable performance.

CLECs require essential facilities and services from a monopoly supplier who is also the CLEC's largest competitor – U S WEST. The FCC recognized the CLEC's precarious situation when it stated, "[i]ndeed, the [CLEC] has nothing that the [ILEC] needs to compete with the [CLEC], and has little to offer the [ILEC] in a negotiation."[11] Left unchecked, monopolists like U S WEST will strive to protect its monopoly and maximize its profits – often at the expense of competition. The FCC recognized that a monopoly would act to protect its monopoly when it stated:

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[11] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, FCC 96-325 (rel. Aug. 8, 1996) (emphasis added) ("First Report & Order").FCC's First Report and Order; ¶ 134.

> Because an incumbent LEC currently serves virtually all subscribers in its local serving area, an incumbent LEC has little economic incentive to assist new entrants in their efforts to secure a greater share of that market. An incumbent LEC also has the ability to act on its incentive to discourage entry and robust competition by not interconnecting its network with the new entrant's network or by insisting on supracompetitive prices or other unreasonable conditions for terminating calls from the entrant's customers to the incumbent LEC's subscribers.[12]

To check the anti-competitive tendencies of the ILECs, Congress included provisions in the Telecommunications Act of 1996 to ensure that ILECs did not favor their retail operations over CLECs in the provision of services and facilities. Those provisions took the form of nondiscrimination obligations for interconnection[13], access to unbundled network elements[14] and resold services[15].

However, the imposition of the nondiscrimination obligation alone is insufficient to ensure that U S WEST meets its obligations. It is also necessary to define for all of the interested parties what it means to be providing nondiscriminatory service and to establish the mechanisms that would allow objective determinations of whether U S WEST is meeting its obligations. The Commission must also determine what are U S WEST's retail or other analogues for interconnection and unbundled network elements.

In the Arizona Consolidated Arbitration Proceeding, this Commission continues to address performance measures, standards and reporting. The parties have recently filed pleadings addressing both the agreements the parties have reached as well as describing where disagreements remain regarding performance measures, standards and reporting.

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[12] First Report & Order; ¶ 10
[13] 47 U.S.C. § 251 (c)(2).
[14] 47 U.S.C. § 251 (c)(3).
[15] 47 U.S.C. § 251 (c)(4).

Performance standards should include well-defined measurements, statistical testing, reporting requirements and remedies for noncompliance that will help control any ILEC thoughts of subjecting CLECs to any competitive mischief. Properly developed measurement and reporting mechanisms can make anticompetitive ILEC activity readily apparent and will allow for quicker corrective action to get back in compliance. MCIW, jointly with other parties, has filed comments addressing performance standards that it will repeat here. Moreover, the Commission has taken official notice of the portion of the consolidated arbitration docket addressing performance standards in this proceeding.

The business rules for implementing these measurements should be completed for third-party testing of whether these measurements are being implemented as agreed to by CLECs, focus on the comparative performance issues without skewing either CLEC or ILEC results, and that reviews the proper coding and classification of data. Business rules should be established before hand, with CLEC participation, that enable the third party tester to replicate the data reports.

In addition to nondiscriminatory service, U S WEST should be providing service to CLECs that is also adequate. Adequate service and nondiscriminatory service are not necessarily the same thing. Service can be adequate but discriminatory or nondiscriminatory but inadequate. If U S WEST provided primary exchange service to CLECs for resale to CLEC customers within five days 90% of the time and provided the same service to its customers within five days 95% of the time, then U S WEST would be providing primary exchange service to CLECs that is at the same time adequate but discriminatory. Additionally, if U S WEST provided primary exchange service to CLECs for resale to CLEC customers within five days 60% of the time and provided the

same service to its customers within five days 60% of the time, then U S WEST would be providing primary exchange service to CLECs that is at the same time inadequate but nondiscriminatory. Any service quality rules need to include considerations to ensure the U S WEST provides services to CLECs is that both nondiscriminatory and adequate.

The notion of nondiscrimination would necessarily require a comparison of the manner in which U S WEST provides services and facilities to CLECs to the manner in which it provides those same services to itself or to its affiliates providing local service.

C. Statistical methods should be used to determine if U S WEST is meeting it nondiscrimination obligations.

When U S WEST produces performance results data for the services and facilities that it provides to CLECs and for the services and facilities that it provides to itself, it will be necessary to determine if the two sets of data indicates that discrimination is present. If there are differences in the data, it is important to know whether the differences are a result of random chance or as a result of systematic differences in the manner that U S WEST provides services and facilities to a CLEC. Any rules needs to consider whether it is appropriate to apply statistical methodologies when analyzing the two sets of data and determine which methodology is appropriate.

D. U S WEST reporting of data.

In addition to collecting performance results data, it is essential that the data be reported to appropriate parties. The reporting of performance data has many benefits. The FCC summarized those benefits when it stated:

> We also believe performance measurements and reporting requirements will provide an important incentive for incumbent LECs to comply with the statutory nondiscrimination and just and reasonable requirements because competing carriers will have access to information detailing an incumbent LEC's performance. Because this access to information

increases the risk of detecting statutory violations, incumbents will have an additional incentive to meet the statutory requirements. In a competitive environment, market forces will tend to ensure that wholesalers provide quality service to their buyers. Here, where competition is largely absent, performance measurements and reporting requirements may increase incumbent LECs' incentive to comply with their statutory obligations.

Performance monitoring reports should also reduce the need for regulatory oversight by encouraging self-policing among carriers. In the first instance, incumbent LECs can review the performance reports and correct any deficiencies in their performance that they detect. Additionally, competing carriers can review the performance reports and assess whether they indicate possible statutory violations. Competing carriers can then use this information as a basis for discussion with the incumbents to resolve performance disputes. Should resort to the complaint process become necessary, the information contained in these performance monitoring reports can facilitate timely and fair resolution of the complaints.[16]

E. Self-executing remedies for failure to meet the performance standards requirements

The Commission must ascertain whether an effective remedy plan exists which will ensure sufficient consequences in order to irreversibly open local markets to competition. Rebates of recurring or non-recurring charges associated with failed performance provide insufficient incentive to ensure compliance with "parity" and "reasonable opportunity to compete" requirements. Remedies must:

- Acknowledge that the impact of poor performance on competitors' reputation in market is immediate, long-lasting and extrapolated to all market participants.
- Recognize that CLECs' ability to enter the market is gated by the reliability and quality of ILECs' operational processes and support systems.
- Address harm to CLEC customers' business that may result in liability for the CLEC.

[16] *Performance Measurements NPRM*, ¶¶ 15 – 16.

The remedy amounts must be sufficient to curb an ILEC's powerful incentive to protect its local revenues through disabling market development. Remedy plans must:

- Encourage ILEC to fix (not ignore) problems requiring OSS or network capacity capital, or human resource outlays.
- Reduce ILEC's ability and incentive to drive a competitor out of the market.
- Ensure that remedies apply on a per-measurement basis. Remedies based on aggregated combinations of measures allow for targeted discrimination by the ILEC.

Should it be determined that U S WEST has failed to meet its adequate and nondiscriminatory service quality obligations when it provides facilities and services to CLECs via its OSS, there needs to be mechanisms that appropriately respond to those failures. That response needs to be tailored in such a way that is fair to U S WEST, but at the same time does not permit U S WEST to fail to meet its obligations without consequence. Absent such mechanisms, the only recourse for a CLEC who is receiving discriminatory or inadequate service is most likely a lengthy and protracted legal battle.

F. Selecting an Independent Tester

To begin the process of selecting a third-party vendor to perform the OSS test, it is first necessary to prepare a request for proposal ("RFP"). The RFP should at a minimum: 1) explain to the vendor what is to be tested, 2) provide high level guidance on how the test should be performed, 3) identify the overall evaluation criteria to be employed, 4) establish a timetable for when the test should be started and completed and the dates for any critical milestones in

between and, 5) identify the deliverables that the vendor should produce during and after the testing process.

The RFP will allow the Commission, U S WEST and other interested parties to document their respective expectations of the testing process before the vendor has been selected and the testing has commenced. This document will help avoid any misunderstandings as to the nature of the test and what it is intended to do. The RFP will also help ensure that the vendor can perform the testing efficiently, as quickly as possible and within budget constraints. To not utilize the RFP would be a recipe for misunderstanding, disagreements, cost overruns and a possible failure to achieve the ultimate goal of determining if U S WEST is meeting its nondiscrimination obligations.

8. Do you agree that formal discovery should remain in place during the workshop phase of OSS? Should the discovery process be modified, if so, how?

Outstanding discovery should be completed. However, no new discovery should be served. Formal Discovery will be distracting to the collaborative process. Rather, participants in the collaborative process should be required to respond to inquiries raised in an informal manner, consistent with the tone of the collaborative process recommended by MCIW in response to Question 6. If a participant fails to respond to an appropriate inquiry, then formal discovery should be implemented for the recalcitrant participant, only.

9. What discovery items that had been incorporated into intervenors' testimony should be separated out and responded to by intervenors prior to the filing of testimony?

Since intervenors' have not yet filed testimony, MCIW cannot respond to this question as posed. However, interpreting this question to mean what responses to existing discovery may be relevant to the OSS inquiry, MCIW believes responses to U S WEST data requests 22, 23 and 34 were described by U S WEST as critical to the evaluation of its OSS. Further, responses to the questions posed in Attachments A and B may be useful.

10. How should the workshops be conducted to ensure maximum results in assessing U S WEST's OSS? Who should participate? How many workshops do you anticipate being useful, and over what period of time?

See, MCIW's responses to Question 6 and 7.

11. Should a Staff Report issue with recommendations regarding existing OSS compliance and modifications to achieve compliance? How long after the last workshop will Staff need to issue a Report?

Staff should issue a report summarizing the results of the collaborative process including its recommendations. The independent third party should also issue a written report concerning the test results from the assessments of U S WEST's OSS. Those reports should be issued within 30 days after the conclusion of the collaborative process

or the completion of the independent testing of U S WEST's OSS, whichever event is last.

12. How much time after issuance of a Staff Report will you need to respond to the Report?

Parties should have at least 30 days to respond to the Staff Report.

13. When will the intervenors and Staff be able to file a preliminary statement indicating whether U S WEST is in compliance with any checklist items?

Parties should provide a preliminary statement on all checklist items, other than items impacted by the OSS collaborative process and independent third party testing, indicating whether U S WEST is in compliance with any checklist item within 30 days after U S WEST has fully responded to outstanding discovery requests.

14. Any other relevant information that the parties desire to provide.

A valid third-party test of the USW's OSS is critical. As the testing in New York has shown, improvements in OSS can make a significant difference in the entry decisions of competitors. MCIW encourages the Commission to recommend a region-wide 14 state OSS testing process. A 14-state OSS testing process would reduce the costs to conduct the necessary testing in each state and would be a more efficient use of the parties' time. U S WEST's systems and interfaces are consistent across all states and regions. MCIW supports the recommendation by Mr. Bob Rowe, Montana Public Service Commissioner, in his letter submitted to the Regional Oversight Committee. (See, Attachment 3.)

Dated: June 22, 1999

MCI WORLDCOM, INC.

By: _____

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Summary of Industry Guidelines for Operations Support Systems Functions

Developed by the ATIS-Sponsored Ordering & Billing Forum

Gwendolyn Shaw
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(Sprint)

For more information on the work of OBF Committees, visit:
http://www.atis.org/atis/clc/obf/obfhom.htm

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Updated: May 14, 1999

Attachment 1

Overview

- **Overview of the Alliance for Telecommunications Industry Solutions (ATIS).**
- **Overview of the Ordering and Billing Forum (OBF).**
  - Mission
  - History
  - Structure
  - Process
- **Role of OBF in Addressing Issues for Access to Operations Support Systems ("OSS") for Local Competition.**
- **Specific OBF Committee Involvement.**
- **Summary of OBF Work.**

ATIS Mission

- Timely resolution of national and international telecommunications issues;
- Initiate and maintain flexible, open industry forums to address technical and operational issues;
- Information source to its members; and
- Promote industry progress with minimal regulatory intervention.

ATIS Scope

- Sponsors 9 Committees/Forums.
- 2500+ participants/500 companies.
- Membership: North American (U.S., Mexico & Canada) and World Zone 1 Caribbean telecommunications service providers, resellers of those services, enhanced service providers and manufacturers.

OBF Mission

- To provide a forum for customers and providers in the telecommunication industry to identify, discuss and resolve national issues which affect ordering, billing, provisioning and exchange of information about access service, other connectivity and related matters.

OBF History

- Established in 1985 for ordering and billing of access services.
- Mission and scope expanded by consensus to include local competition issues in May 1995.
- First local competition issues introduced at that time.
- Throughout its history, OBF has resolved over 1300 issues.

Seven OBF Standing Committees

Structure of the OBF:

- Billing (BLG) Committee
- Directory Services Committee (DSC)
- Ordering and Provisioning (O&P) Committee
- Message Processing (MSG) Committee
- Subscription (SUB) Committee
- Telecommunications Services Ordering Request (TOR)
- SMS/800 Number Administration Committee (Not addressing local competition issues)

OBF Process

- **Participation: 500+ representing 90+ companies**
- **Meeting Frequency: quarterly in week-long General Session; Interim meetings scheduled to meet work load**
  - » Activity virtually on-going
- **Nature of Outputs: design of or changes to business processes which include:**
  - » Specific interface guidelines
  - » Informational requirements

Issues

- **Introduced and championed by forum participants**
  - » Business problem explained
  - » Supporting details provided
  - » Desired resolution described
- **Criteria for Issue Acceptance**
  - » National in Scope
  - » More than one interest group impacted
  - » No solution exists
- **Issues prioritized, scheduled on published agendas, worked in open committee meetings, and documented in notes**
- **Resolutions reached through consensus process**

Issue Resolution Process

- Two stages of closure, Initial and Final, provide the industry ample safeguards and periods for review, input and alteration of a resolution
- An issue usually takes multiple meetings from the time it is first discussed to reach final resolution
- Amount of work has been massive
- Most OBF participants have other responsibilities at their companies

Resolution Implementation Expectations

- **Based on history, implementation is recommended at the first step of closure called "Initial Closure"**
  - » Not possible with referred issues
- **Implementation is voluntary but there is an expectation of good faith participation in reaching resolutions**
- **Companies need to contact other companies to confirm and coordinate implementation of the resolutions**

OBF Committees' Involvement In Local Competition OSS

Process	OBF Committee Involved
Pre-Ordering	O&P/TOR
Ordering/Provisioning	O&P/TOR/SUB/DSC
Billing	BLG/MSG

Other ATIS Forum Involvement

- Network Interconnection and Interoperability Forum (NIIF) - repair and maintenance
- Telecommunication Industry Forum (TCIF) Electronic Data Interchange (EDI) Committee - data modeling
- TCIF's Electronic Communication Implementation Committee (ECIC) - communications platforms

Inter-Forum Liaison Created for Ordering OSSs

- **OBF Committees are responsible for the business process flows, interface guidelines, and informational requirements**
  - » Create Local Service Ordering Guideline (LSOG) and Local Service Request (LSR) forms
  - » LSR Version 4 due for release February 1999
- **The EDI Committee is responsible for some data modeling**
  - » LSR Version 4 (March, 1999) will be included in EDI Version 10 (June 1, 1999
- **The ECIC suggests communications platforms to the OBF (e.g., TCP/IP, SSL3, OSI)**

The Joint OBF/TCIF Process

- Liaisons attend each others' meetings while issues are being discussed
- OBF works an issue to closure and produces industry support interface specifications that include field identifiers, data elements, usage rules, etc.
- OBF then refers it to the EDI Committee
- Questions may flow back and forth
- EDI models the data, prepares a guideline.
- The guideline is balloted (i.e., voted on by TCIF member companies) and approved

Modification and Adaptation of Existing Business Processes

- Work to support local competition in other areas has been accomplished by modifying existing processes
- Much guideline work completed is stand alone and requires no other group's input before it can be used
- Where other non-OBF groups are needed, those relationships exist and are being utilized to facilitate the needed updates

Summary of OBF Work

- Pre-Ordering
- Ordering
- Provisioning
- Billing

Summary of Work: Pre-Ordering

- **Under discussion since May 1996**
  - » Work on ordering began first (deemed a higher priority)
- **Customer Service Information issue is now complete**
  - » Reviewed requested data elements to determine which are required vs. requested, priority for implementation, etc.
  - » Created specifications for companies desiring to exchange data via fielded format
  - » CSI issues were included in LSOG Version 4
- **Transition Information/Loss Alert/Pre-Order Service Configuration requirements were included in LSOG Version 4**

Summary of Work: Pre-Ordering

Requirement	OBF Status	Date Closed	LSR Version	EDI Release
Customer Service Information	Final Closure	04-24-98	4	10
Telephone Number Inquiry & Reservation	Final Closure	11-07-97	3	10
Feature/Service Availability	Final Closure	11-07-97	3	10
Scheduling Availability & Reservation	Final Closure	11-07-97	3	10
Address Validation	Final Closure	11-07-97	3	10
Block of DID Numbers Inquiry & Reservation	Final Closure	11-07-97	3	10
UNE Service Provider Inquiry	No Impact	2-12-99	N/A	N/A
Transition Information/Loss Alert/Service Configuration	Initial Closure	11-06-98	4	10

Note: LSOG v4 effective March 16, 1999. Anticipated Date for EDI Version 10: June 1999.

Summary of Work: Ordering

First issue introduced May '95

Resale

Service	OBF Status	Date Closed	LSR Version	EDI Release
Basic Exchange	Final Closure	10-24-96	1	7
ISDN	Final Closure	02-06-97	2	8
Private Lines	Final Closure	02-06-97	2	8
Frame Relay	Final Closure	02-06-97	2	8
Centrex	Final Closure	08-15-97	3	9
PBX/DID	Final Closure	12-16-97	3	9

Summary of Work: Ordering

Unbundled Network Elements

Element	Status	Date Closed	LSR Version	EDI Release
Simple Loop	Final Closure	10-24-96	1	7
Complex Loop	Final Closure	02-06-97	1	7
Line Switch Ports	Final Closure	10-24-96	1	7
Loop & Line Switch Port	Final Closure	02-06-97	2	8
Trunk Switch Ports	Final Closure	02-06-97	2	8
ISDN Switch Ports	Final Closure	02-05-99	4	9
SS7 Links & Ports	Final Closure	06-25-98	ASR v20	N/A
Footprint Planning Checklist	Final Closure	06-25-98	ASR v20	N/A
Common Transport/Network Platform	Final Closure	11-06-98	ASR v21	N/A
Local Number Portability	Final Closure	11-06-98	4	10

Summary of Work: Ordering

- **Interconnection Trunks completed and included in ASR Version 18, March 1997. Implemented 10-11-97**
- **Number Portability (both Interim and Local) has been completed by the OBF and included in EDI Version 7 and 8, respectively**
- **Directory:**
  - » Revised DL Form to enhance process
  - » Working on merging DSR into LSR and DSCR into DL

Summary of Work: Ordering (continued)

- Local Number Portability requirements are complete and are included in LSOG Version 4/EDI Release 10
- Unbundled Trunking elements have been defined and were included in ASR Version 20
- Unbundled Transport elements have been defined and were included in ASR Version 21

Summary of Work: Ordering Customer Account Record Exchange (CARE)

- The Subscription Committee has established the basic foundation for an industry standard Primary Interexchange Carrier (PIC) order process involving local resale and ported telephone number activities
- First local issue accepted by July 27, 1995
- Local competition issues are reflected in Issue 10 of the CARE document and all of its subsequent revisions

Summary of Work: Ordering CARE

Topics Covered Include:

- **Responsibilities to notify Interexchange Carriers of End User moves**
  - » Local Resale Codes for Transfer Associated with NPA NXX Territory
- **CARE Utilization By Other Interest Groups**
  - » Issue to develop CARE use between a Local Reseller and a Switch Provider for the purpose of PIC changes is in progress.
  - » Developed a reject code to disallow a PIC change via CARE when the line is involved in an AP Special Billing Arrangement. Request must come from end user to the AP.
  - » Identify PIC Changes associated with unauthorized changes in a local resale environment.

Summary of Work: Provisioning

Item	OBF Status	Date Closed	LSR Version	EDI Release
Firm Order Confirmation	Final Closure	10-24-96	1	7
FOC Transition Information	Final Closure	11-7-97	3	9
Delay Notice	Final Closure	11-7-97	3	9
Completion Notice	Final Closure	11-6-98	4	10
Error ID	Open			
CLEC Acknowledgment Flows	Final Closure	11-7-97	3	N/A

NOTE: EDI Issue 10 ballot expected to be final June 1, 1999

Summary of Work: Billing End User

- **Issues involve the exchange of message and usage between ILEC's, Competitive Local Exchange Carriers (CLECs) and IXC for the billing of end user customers**
  - » First issue presented July 1995
- **Issues have been related to:**
  - » Industry numbering schemes and the accompanying exhaust of Revenue Accounting Office (RAO) codes
  - » Local Number Portability (LNP)
  - » Differentiation of messages (to/from CLECs vs. to/from ILECs)
  - » Identification of Local Service Providers for Resale and Unbundled Networks.
  - » Differentiation of Resale and Unbundled Traffic

Summary of Work: Billing End User

Guidelines have been created for:

- Shared NPA-NXXs
- Increased field for Operating Company Number
- LNP To/From Ported Number
- Line level information exchange
- RAO code exhaust/RAO code assignments
- Rate center LNP facilities-based message processing
- Return codes for resellers
- Guidelines for Class Features (EC to CLEC)
- Standardizing the definition of an RAO LEC
- Port Indicator and Ported OCN on Returns Records (EC to IC)

Summary of Work: Billing End User

Current work and open issues include:

- Industry Line Level Database for Local Resale/UNE (Being worked with the NIIF and TFPC)
- LNP database queries
- Billing validation database support for Local Resale and UNE.
- Category 11 (access) records to support Unbundled Network Elements
- Common Terminology for "Type of Company"

Summary of Work: Billing End User

Current work and open issues (continued):

- Local Service Provider Indicator (LSPI) guidelines with Billing Committee and Committee T1S1
- Reseller Identification in Exchange Message
- Resale of Vendor-Rated N11 service
- 1000 Block Number Pooling
- Synchronization of OCNs and Company Codes

Summary of Work: Billing LEC to LEC

First Issues introduced May '95

Item	OBF Status	Date Closed	CABS Version**	SECAB Version
Interconnection Meetpoint Billing	Final Closure	01-11-96	26	5
Local Usage	Final Closure	01-11-96	26	5
Interim Number Portability	Final Closure	08-29-96	28	5
Local Product & Service Offerings	Final Closure	10-24-96	28	5
Local Features	Final Closure	08-29-96	28	5
Line-Side Ports	Final Closure	08-29-96	28	5
Line-Side Loops	Final Closure	05-09-96	26	5
Resale	Final Closure	08-29-96	28	5
Interconnection	Final Closure	05-29-96	26	5
Local Number Portability	Final Closure	02-06-98	29	6
Unbundled Network Elements	Initial Closure		Unknown	7
Exchange of End User Records between ILEC and ULEC	Open			
Notification of Interconnecting Billing to the ULEC	Open			
Billing Verification Process in an Unbundled Environment	Open			
Identification of Unbundled Usage on an Access Bill (1549)	Final Closure		31	

**Although mapped to CABS interface document, there were other alternatives discussed & minimum requirement identified. CABS v26 implementation dates were 9-96 to 1-96. Version 27 dates were 9-97 to 12-97. Version 29 dates were 3-98 to 5-98. Version 31 dates were 4-99 to 5-99.

In Conclusion

- Industry guideline development is an evolutionary process.
- Significant work has been done in establishing a foundation for OSS guidelines.
- Committees have been and are continuing to work at an accelerated pace.
- We are aware of our responsibility to the industry to move quickly yet be thorough.

For further information, see
http://www.atis.org/atis/clc/obf/obfhom.htm

April 9, 1999

By Fax and Hand Delivery

The Honorable William E. Kennard
Chairman, Federal Communications Commission
The Portals
445 Twelfth Street, S.W.
Washington, D.C. 20554

Dear Chairman Kennard:

Implementation of the Telecommunications Act of 1996 has focused increasing attention on the importance of independent third-party testing of incumbent local exchange companies' (ILECs') Operations Support Systems (OSS). This letter briefly sets forth the central principles of independent third-party testing that are vital to ensure that testing helps open local markets to competition for the benefit of consumers, rather than harming competition by failing to identify roadblocks and endorsing systems that in fact do not work.

We encourage the Federal Communications Commission, the Antitrust Division of the Department of Justice (DOJ) and state commissions to provide leadership on this critical issue by encouraging the implementation of OSS tests that rely on (i) a neutral, independent third-party who (ii) actually conducts a comprehensive test that (iii) demonstrates the ability of all types of new entrants to operate at commercial volumes to (iv) provide a full range of products through unbundled network elements and UNE-Platform (v) using all OSS functions in the versions that new entrants will actually use. These basic principles underlying thorough third-party OSS testing are briefly explained below.

1. Neutral, Independent Third Party. While it should be self-evident, the first principle is that the third party chosen to conduct the test must in fact be neutral and independent. The value of third-party testing can only be achieved if that party is credible and its evaluation will be seen as objective and unbiased.[1]

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[1]For example, the Texas state commission chose Bellcore (now known as Telcordia) as the third party for its OSS test, despite concerns raised by MCI WorldCom and others that Bellcore had a serious conflict of interest based on extensive business relationships with SBC. In

Attachment 2

2. **Conduct Test, Not Just Monitor It.** In order for the third party to determine the adequacy of the ILEC systems and determine whether competitive local exchange carriers (CLECs) can adequately connect with them, it is necessary for the third party to go through the actual steps to develop and conduct the test, not merely to review work done by others. At the same time, it is highly desirable for CLECs to be permitted to test alongside the third party to confirm and validate the third party's results, or to provide supplemental information based on actual customer experience that would not otherwise be knowable by the third party due to the constraints of the test environment.[2]

3. **Demonstrate All Types of New Entrants Can Operate at Commercial Volumes.** The Act contemplates that new entrants will use various entry strategies, so the third-party test should ensure that the ILEC's OSS is able to support each strategy at commercial volumes. For example, small or niche CLECs may prefer to use less expensive systems (i.e., GUI), while larger competitors need application-to-application interfaces (i.e., EDI). Limiting testing will discourage competition using the untested methods, in effect substituting an incumbent's or regulator's judgment about desirable strategies in place of determinations that should be made in a competitive marketplace.

4. **Cover Full Range of Products Using Unbundled Network Elements and UNE-Platform.** The third-party test should cover a full range of products (both voice and data) using various service delivery methods, specifically including unbundled elements and UNE-Platform. As noted above, arbitrary limitations on testing will distort the proper functioning of the marketplace.

5. **Test All OSS Functions and the OSS Versions that Actually Will Be Used.** Finally, it is critical that all OSS functions (i.e., pre-order, ordering and provisioning, billing, repair and maintenance) be tested,[3] and that the versions which actually will be used in the

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fact, SBC and Bellcore initially proposed that the contract for OSS testing be made an addendum to the current "master contract" between the two parties. SBC indicated a month ago that Bellcore is working on OSS test issues pursuant to a letter of intent, but MCI WorldCom has not been able to obtain a copy.

[2]In New York, MCI WorldCom was able to test OSS ordering functions alongside the third party (KPMG), and was able to assist KPMG in uncovering problems that would not otherwise have been found in the test environment. For example, the severe problem of differing business rules among Bell Atlantic's various locations was not discovered apart from MCI WorldCom's testing because the data Bell Atlantic provided to KPMG was clean and did not cause any problems during the initial third-party testing. After MCI WorldCom alerted the third party to this problem, however, KPMG confirmed its existence.

[3]It is important for any third party test to evaluate and audit Bell Operating Company performance reports and methodology, because of the reliance that will be placed on the reports

marketplace be tested. Incumbents must not be allowed to game the process by testing one version and then promptly migrate to a different version leaving new entrants unable to operate or compete. Nor can incumbents be allowed to prevent competition by blocking CLEC access to any critical function, such as pre-order. The purpose of independent third-party testing is not to engage in unnecessary regulatory processes, but to encourage irreversible local competition for the benefit of consumers. Accordingly, the ILEC's change management procedures must be thoroughly tested to ensure that inevitable systems changes can be accomplished without disrupting competition.

* * * * *

The Commission (along with DOJ and state commissions) should act now to ensure that third-party testing is conducted in a meaningful fashion, because this issue is subject to increasing attention around the country. Numerous states are currently engaged in carrying out third-party testing, designing tests, or considering whether to proceed with testing. New York has been involved in independent third-party testing for months, while third-party supervised testing began in Texas on April 1 for unbundled loops, even though a master test plan has yet to be finalized. Massachusetts and Pennsylvania are both on the path to conduct third-party tests in the near future, and California has obtained input from interested parties and is actively considering what sort of process to require, with a final decision expected this month. Moreover, MCI WorldCom and other CLECs have pending petitions in both Georgia and Florida proposing third-party testing in those states.

MCI WorldCom has long viewed actual commercial-scale entry to be the best evidence that a local market is truly open to competition. While ILEC intransigence has deterred such entry, the Commission has concluded that appropriate testing can be a helpful substitute for real commercial experience. If the Commission is to rely on testing, however, it should be rigorous and comprehensive. Thorough OSS testing may provide useful evidence of whether an ILEC's OSS is ready for new entrants, and will help identify and resolve problems that might stand in the way of local competition. For example, in New York, the ongoing third-party test has identified over forty notable problems with Bell Atlantic's OSS, as well as aiding in the resolution of numerous other issues. There can be no doubt that, in the absence of the independent test, each of the OSS problems in New York would have blocked or handicapped local competition.[4] This

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in deciding section 271 applications, and in preventing subsequent backsliding.

[4]To give just one critical example from New York, the third-party testing found that Bell Atlantic's specifications for EDI were inconsistent with Bell Atlantic's business rules, as well as inconsistent with the actual behavior of Bell Atlantic's systems (KPMG Exception Report No. 25). This would affect any effort to compete locally, because it impacts key areas such as processing orders, address validation, error messages, telephone number reservations, scheduling and availability of service, loop qualification, and feature service availability. By contrast, in the Texas OSS test, no one is testing SBC's documentation, so comparable problems would go

would have been the situation if, for example, regulators had taken at face value Bell Atlantic's Coopers & Lybrand testing, which enthusiastically endorsed the OSS that independent testing subsequently has found so fraught with problems. Before a third-party test ends, it is vital that all OSS deficiencies identified during the course of testing, whether uncovered by the third party or identified by CLECs and validated by the third party, be remedied by the incumbent and that appropriate regression testing (to ensure the fixes did not cause yet other problems) is conducted.

We continue to believe that in measuring whether a market is irreversibly open to competition, there is no substitute for real commercial experience. But when conducted according to the principles discussed above, independent third-party testing provides great benefits for all interested parties. First, the independent testing greatly assists regulators by providing a credible third party to assess the viability of complex technical systems. This permits both state and federal regulatory staffs to become immersed in far fewer of the arcane details required to determine the workings of highly detailed and intricate technical systems. It also helps keep regulators out of the middle of endless "he-said she-said" debates, and provides useful evidence on which commissions may base their decisions.

Second, independent testing gives Bell Operating Companies (BOCs) an opportunity to demonstrate credibly whether the local markets in their regions are open to competition with workable OSS. Independent testing may be the quickest path to section 271 authorization for BOCs when their systems are ready and other legal requirements are met. Next, third-party testing helps competitors seeking to enter local markets by ensuring that the OSS does in fact work and that new entrants will not be blocked by inadequate systems. Vibrant local competition is, after all, the goal of section 271 and all the effort to ensure that local markets are open. Finally, and most important, independent third-party testing will significantly benefit consumers by moving the process forward more quickly, so that they can more promptly obtain the many benefits of competition.

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undetected. The third party (Telcordia) is merely overseeing limited testing by CLECs, which were initially able to build ordering system interfaces only with the ongoing assistance of the PUC.

We encourage you to provide leadership in the ongoing debate surrounding independent third-party testing, and would be pleased to discuss these important principles, along with the underlying details, at your convenience.

Sincerely,

Jonathan B. Sallet
Chief Policy Counsel

cc: Hon. Susan Ness
Hon. Harold Furchtgott-Roth
Hon. Michael Powell
Hon. Gloria Tristani
Kathryn Brown, Esq.
Lawrence Strickling, Esq.
Robert Atkinson, Esq.

For discussion

LET'S WORK TOGETHER TO RESOLVE BELL OPERATING COMPANY LONG-DISTANCE ENTRY

Bob Rowe

Montana Public Service Commissioner

No Bell Operating Company has yet been granted permission by the FCC to provide in-region long distance. However, real progress has been made implementing Section 271 of the Telecommunications Act. Two reasons for this progress are problem-solving collaboratives and independent, third-party testing of Operations Support Systems.

In rural areas such as the West, multi-state cooperation among the Bell Operating Company (U S WEST), the state commissions, and other parties would allow this work to be done more quickly and more efficiently for all, but especially for the BOC. The goal should be ***"meeting the competitive checklist by building systems that work."*** The result should be quicker BOC in-region long distance, with a more productive process along the way.

Before it grants Section 271 relief, the FCC must determine that the Bell Operating Company meets the fourteen point competitive checklist and that granting in-region long distance would be in the "public interest." In making its determination, the FCC must give the United States Department of Justice's recommendation substantial weight, and must also consult with the state public service commission.[1] Because of time and resource constraints at the federal level, the state commission's crucial role has been in developing the record, which the FCC and the DOJ review, and - in several states – convening collaborative processes to work through and solve the many technical issues.

Section 271 does not mention "Operations Support Systems." However, the complex

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[1] In rejecting a U S WEST petition for immediate judicial review of a Montana PSC discovery ruling, the state district court described the 271 consultative process:

"The PSC will not issue a final decision on whether U S WEST can provide interLATA services. The PSC will not issue a final decision in this case, as that term is known to this Court. Rather, the PSC is developing a factual record for the FCC's consideration. The FCC is not bound by the record produced by the PSC, and it can give that record whatever deference it desires.

* * *

"One struggles in vain to find a label to place on the proceedings now before this Court and before the PSC. It is, one might say, an ineffable procedure." U S WEST Communications, Inc. V. Montana PSC, Montana First Judicial District Court for Lewis and Clark County, Cause No. BDV 99-12, Order on Motion to Dismiss (March 12, 1999).

Attachment 3

systems for handing off customers from an "incumbent" network to a "competitive" provider, which we now refer to as "OSS," pervade almost all elements of the fourteen point competitive checklist. Getting these systems to work, and setting performance standards for them, has become the crucial focus in state commission work on Section 271. Done best, this is an iterative process of problem identification and problem correction. In New York and Texas, the state utility commissions have taken the lead in establishing multi-party collaboratives and using independent third-party testing to build systems that work.

Over the past year, much has been accomplished.

FCC Commissioner Michael Powell[2] and several of his colleagues, myself,[3] and others called for the use of problem-solving collaboratives. This has been done with great success in New York, Texas, and elsewhere. A collaborative is resource-intensive, but probably less so than would be a formal contested case. A collaborative requires a commitment of commission staff beyond the reach of rural state commissions, and the effort may be harder to cost-justify for Bell Operating Companies and other industry participants in individual rural state markets.

The FCC has made clear testing of OSS systems is expected.[4] The FCC has said that third party testing is acceptable.[5]

Assistant Attorney General for Antitrust Joel Klein has stated that third party testing has been "particularly useful not only in pointing out problems and moving forward to remedy them, but also in removing some of the 'he said-she said' disputes between the Bell Companies and the new entrants from the debate." Klein also said collaboratives are useful, and that DOJ would participate in them, as it is in New York and Texas.[6]

Two firms, KPMG Peat Marwick and Telecordia (formerly Bellcore), have developed third party testing regimes which seek to duplicate the demands a competitive phone company would place on the incumbent's systems. These testing regimes have been refined, their "first

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[2] E.g., Separate Statement of Commissioner Powell, Bell South Section 271 Application for South Carolina, CC Docket 97-137 (Order, December 24, 1997).

[3] Bob Rowe, "Collaborative Approach May Enhance Section 271 Review," State and Local Communications Report (January 23, 1998).

[4] Ameritech Section 271 Application for Michigan, CC Docket No. 97-137 (Order, August 19, 1997), par. 138; BellSouth Section 271 Application for Louisiana, CC Docket 97-231 (Order, February 3, 1998), par. 19.

[5] Ameritech Section 271 Application for Michigan, par. 110; BellSouth Section 271 Application for South, par. 81; BellSouth Section 271 Application for Louisiana, CC Docket 98-17 (Order, October 13, 1998), par. 100.

[6] Statement of Joel Klein before the Senate Judiciary Committee Subcommittee on Antitrust, Business Rights, and Competition (February 25, 1999) pp. 12-13.

cost" has already been expended, and they will be more reasonably and affordably adopted by second movers among the states and industry. Testing has also become more widely accepted, not only by Bell Atlantic and SBC but also by competitors.[7]

We're much farther up the curve on both OSS and on third-party testing. We also know more about the application of "alternative dispute resolution" to the Section 271 process. In short, there's a blueprint to follow and improve upon. Now is the time to do so.

Other progress has also been made:

- The OSS Clearinghouse is sharing information within the industry and developing a continual improvement approach to OSS. The NARUC Section 271 Template provides a structured outline for states to apply to record development.[8]
- The FCC's Louisiana order, for the first time, gives guidance on every element of the competitive checklist. This bounds the range of possible divergence among states in their OSS-related review.
- The FCC, DOJ, and various other parties have offered more discussion and guidance on the "public interest" test.
- The Regional Oversight Committee for U S WEST (ROC) and similar organizations of state commissions have been consulting on Section 271 issues over the past three years.
- The NARUC Best Practices Project[9] identified numerous suggestions for alternative dispute resolution and OSS.

Regional coordination on OSS third-party testing would allow rural states, and especially the companies which serve rural states, to capture the benefits of the methods which have been developed in more urban states, but at a much lower cost per-state than would otherwise be possible. In practice, operational support systems are regional. Separate OSS will not be deployed in each rural state, although it may be necessary to assess the relationship between the regional OSS and any legacy systems which are still in use. Equally important, although states may differ in some aspects of evaluating OSS

[7] Robert Falcone and Joe Gillan, A Blueprint for Third-Party Testing (CompTel, February 1999).
[8] NARUC Communications Committee, A Section 271 Template, adopted by resolution, July 1998.
[9] Vivian Witkind-Davis, Ph.D., Bob Rowe, A Compilation of Best Practices to Implement the Telecommunications Act of 1996 (National Regulatory Research Institute, February 1999).

(perhaps volume or interface with legacy systems), for the most part the "OSS bar" has now been firmly set by the FCC. When it comes to the crucial FCC determination, these standards will likely not vary significantly between states.

The successful work of a regional collaborative would be conveyed to the individual state commission for incorporation into its 271 record development and recommendation. To the extent they felt the need, the various parties would still have the opportunity to make their OSS-related arguments to the state commissions. (For example, based on the objective measurements obtained, they could debate whether a certain capacity is sufficient for a particular state, or whether the nature of competition in that state required special adjustments to the system.) However, most of the hands-on work would already have been done by engineers focused on building systems that work. In addition to the OSS information, the state review would still include the non-OSS issues and public interest considerations.

Here are some initial steps, which could be taken on a regional basis. For purposes of example, I will use the U S WEST region and the Regional Oversight Committee for U S WEST:

1. ROC could appoint a working group from each participating state and U S WEST to design a collaborative. The working group should include a large number of technical people. (We lawyers should have our ties clipped.)
2. The FCC, DOJ, and competitors would be invited to observe or participate, as appropriate.
3. The working group would develop basic guidelines for how they would conduct their work, keeping in mind that the goal is successful checklist compliance, OSS and performance standards. A process would be designed to achieve this goal. Section 271 does not contemplate Administrative Procedure Act contested cases by state commissions, and such a process may even be destructive of goal.
4. Veterans of the New York and Texas collaboratives would be invited to offer their guidance.
5. Third party testers would be invited to submit proposals, with the tester selected by the work group.

6. The work group would meet regularly by phone and list-serve, and in-person as needed.
7. As the work progressed, specific issues would be identified. Examples might be the interface with legacy systems or any potential state-by-state or sub-regional variations such as use of state-specific legacy systems or greater development of a particular type of competition within one state (e.g., Centrex resale).
8. The result would be communicated to each participating state commission.

Section 271 has been affirmed against judicial challenge.

The FCC is unanimous and clear in its application. Competition and universal service are the twin lodestars of the Telecommunications Act. The long distance market would benefit from additional competition and the Bell Companies would like a share of that revenue. The local market is desperate for competition, and local competition will require systems that comply with the competitive checklist.

It's in everyone's interest to get going, and to get it right.

CERTIFICATE OF SERVICE

I hereby certify that on this 21st day of June the Original and 10 copies of the enclosed document were sent via Airborne Express to:

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